

# Proposed Revisions to Michigan's Added Cost Funding Formula (Review)

By

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# Added Cost Referent Group Members

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# OCTE Responsibilities

- Analyze data, conduct appropriate simulations, and share with relevant stakeholders
- Value and consider referent group recommendations
- Adhere to process timelines
- Final decision making authority which will best meet the intent of the legislation and the objectives of both the stakeholders and the organization

# Timeline

Time	Action
October 2014	OCTE presents requested information to Referent Group
Dec. 11, 2014	Referent Group final recommendations
March 18, 2015	Proposed changes shared with CTE community
May 7, 2015	Referent Group discuss input from CTE community and makes recommendations
May-June 2015	OCTE runs final simulations
June 2015	OCTE presents final proposal to changes to Legislation

# Background

- Total Added Cost Funding = \$25,811,300 for 2012-2013
- 60% allocated to local districts using the State Rank List = \$15,486,780
- 40% proportionally distributed among the 54 Career Education Planning Districts (CEPD) Options

# Current 61a1 Formula

- Based on minutes of instruction (seat time)
- Difficult for districts to report accurately
- Designed to partially reimburse districts for the “Added Cost” of CTE

# Goals

- Goal 1: Update to reflect today's cutting-edge, rigorous, and relevant CTE
  - “Any Time, Any Place, Any Way, Any Pace”
  - Academic and Technical Rigor
  - Secondary/Postsecondary linkages
  - Programs Lead to High Skill/High Wage/High Demand careers
- Goal 2: Increase transparency of formula
- Goal 3: Consistent with legislative intent

# Objectives

1. Find an appropriate substitute for seat time that is consistent with today's CTE (Goal 1)
2. Fund high skill, high wage, high demand programs (Goal 1)
3. Create a simplified formula (Goal 2)
4. Make the formula accurate & precise (by moving away from seat time or student hours) (Goal 2)
5. Support priorities of OCTE, the Michigan Department of Education (MDE), and the Governor's Office (Goal 3)



# Current 61a1 Formula

## 1. Rank List and Reimbursement Rate

- Type of program

## 2. Student Hours

- Number of pupils enrolled
- Length of training provided

**CIP Code Level Funding =  
Reimbursement Rate \* Student Hours**

Michigan Department of Education  
Office of Career and Technical Education CTEIS Report

## (X0110 - Summary) Funding Factor Development Report for: 2013-2014

CIP Code	Program Name	Base Rate	Reim Rate	St Hrs	LTCS St Hrs	Reim	Cum Reim	Full Fund	Cum Full Fund
<b>Based on Added Cost of \$25,811,300.00</b>									
<b>Distribution of Funds According to State Rank</b>									
52.0299	Business Admin Mgt & Operations	338.00	338.00	9,385.95	10.09	3,173,712.28	3,173,712.28	3,173,712.28	3,173,712.28
52.1999	Marketing Sales and Services	216.00	216.00	11,850.69	6.89	2,560,609.55	5,734,321.83	2,560,609.55	5,734,321.83
51.0000	Therapeutic Services	250.00	250.00	19,649.19	4.65	4,912,879.31	10,647,201.14	4,912,879.31	10,647,201.14
11.0901	Computer Syst Networking & Telecommunications	358.00	358.00	2,096.86	0.00	750,675.43	11,397,876.57	750,675.43	11,397,876.57
46.0000	Construction Trades	398.00	398.00	6,793.69	2.99	2,704,263.53	14,102,140.10	2,704,263.53	14,102,140.10
19.0700	Child & Custodial Care Services	313.00	313.00	948.39	0.00	296,846.46	14,398,986.56	296,846.46	14,398,986.56
52.0800	Finance & Financial Mgt Services	248.00	178.88	5,956.40	0.00	1,065,503.60	15,464,490.16	1,477,187.42	15,876,173.98
13.0000	Education General	317.00		3,002.56	2.58		15,464,490.16	952,133.43	16,828,307.41
11.1001	Systems Administration/Administrator	358.00		894.19	0.00		15,464,490.16	320,120.47	17,148,427.88
11.0201	Computer Programming/Programmer	358.00		1,650.02	0.00		15,464,490.16	590,706.26	17,739,134.14
11.0801	Digital/Multimedia & Information Resources Design	358.00		3,270.70	0.00		15,464,490.16	1,170,911.30	18,910,045.44
43.0100	Public Safety/Protect Services	333.00		3,914.66	0.00		15,464,490.16	1,303,580.42	20,213,625.86
51.1000	Diagnostic Services	250.00		352.71	0.00		15,464,490.16	88,177.08	20,301,802.94
01.0000	Agr, Agr Oper & Rel Sci	252.00		5,770.63	0.00		15,464,490.16	1,454,199.17	21,756,002.11
15.0000	Engineering Technology	338.00		1,449.73	1.72		15,464,490.16	490,224.78	22,246,226.89
12.9999	Personal & Culinary Services	356.00		8,460.77	0.00		15,464,490.16	3,012,035.93	25,258,262.82
46.0503	Plumbing Technology	398.00		70.43	2.15		15,464,490.16	28,300.46	25,286,563.28
03.0000	Natural Resources and Conservation	252.00		282.14	3.40		15,464,490.16	71,525.87	25,358,089.15
46.0301	Elec/Power Trans Installer	398.00		305.50	0.00		15,464,490.16	121,588.98	25,479,678.13
47.0604	Automotive Technician (NATEF Cert)	384.00		9,438.50	0.00		15,464,490.16	3,624,383.19	29,104,061.32
26.0102	Biotechnology Medical Sciences	250.00		157.29	0.00		15,464,490.16	39,322.91	29,143,384.23
10.0301	Graphics Communications	294.00		6,416.20	0.00		15,464,490.16	1,886,363.28	31,029,747.51

# Process

- **How to Evaluate Changes**
  - Create and run new funding formula
  - Compare results to actual allocations at the CEPD, Fiscal Agency, and program levels
- **Possible Effects**
  - Examine: Redistribution of funds

# Goal 1: Update to Reflect Today's CTE

- Substitute Student Progress for Student Hour
- Count students in programs rather than course sections
- Fund an *a priori* set of CIP Codes with the 60% funds
- Programs higher on rank list generate more funds

# Goal 2: Increase Transparency

- Assign a fraction of total available funds to each PSN
- Use three expenditure groups instead of “reimbursement rate”
- Eliminate special funding rules

# Goal 3: Legislative Intent

- Retain 60/40 split (Administrative Rules)
  - Programs funded by the CEPD share (40%) shall be determined by the CEPD

# 60% Funds Analyses

# Student Progress vs. Student Hour

- Time (minutes per week/number of weeks)
  - A measure of amount of instruction provided
- Courses?
- Segments?
- Student Outcomes? (test scores)
- Student Progress?
  - Enrollee, Concentrator, Completer



# Student Progress

- More student progress = more funding
- Proposed Progress Categories
  - Enrollees (<7 segments)
  - Concentrators (7+ segments)
  - Completers (12 segments & took assessment if applicable)

# Which Weights Minimized Extreme Changes from Current Allocation?

- Proposed Progress Weights
  - Enrollees = 0
  - Concentrators = 5
  - Completers = 10

# Median Cost

- Median cost by CIP code (3-year average across state) per student
  - Group 1: Programs with a cost per student in the top one-third
  - Group 2: Programs with a cost between the 33<sup>rd</sup> and 66<sup>th</sup> percentile
  - Group 3: Bottom 33<sup>rd</sup> percentile

# Which Weights Minimized Extreme Changes from Current Allocation?

- Proposed Per-Student Expenditure Weights
  - Top Third = 10
  - Middle Third = 5
  - Bottom Third = 1

# Programs Higher on Rank List Generate More Funds

- Incorporate High Skill/High Wage/High Demand into formula through Rank List
- Three groups based on position on Rank List
  - CIP Codes Ranked 1-7
  - CIP Codes Ranked 8-14
  - CIP Codes Ranked 15-20

# Which Weights Minimized Extreme Changes from Current Allocation?

- Proposed Weights based on position on Rank List
  - Ranked 1-7 = 10
  - Ranked 8-14 = 5
  - Ranked 15-20 = 2.5

# Which CIP Codes Will Be Funded With the 60%?

- Currently changes year to year
- Introduces uncertainty to the process
- Makes formula complex (looping involved)
- Not transparent

# Assign a Fraction of Total Available Funds

- Identify CIP Codes *a priori*
  - Stable from year to year
  - Simple
  - Transparent
- Fund Top 20 CIP Codes on Rank List with the 60%
  - Objective



# Proposed Formula for the 60% Funds

Fraction of Funds allocated to each PSN

$$= [E(a) + N(b) + C(c)] * M * R$$

- E= # enrollees; a = enrollee weight
- N= # concentrators; b = concentrator weight
- C= # completers; c = completer weight
- M = Median Cost Factor
- R = Rank List Factor

# Summary of Proposed Changes

Proposed	vs.	Current
Student Progress		Student Hour
Median Cost by CIP Code		Added Cost Factor by Career Cluster
Programs Higher on Rank List—Generate More Funds		Programs Higher on Rank List—More Likely to Generate Funds

# 40% Funds Proposals

# CEPD Share (Current)

$$[\text{CEPD Full-funded Reimbursable Amount} \div \text{Total State Full-Funded Reimbursable Amount}]^*$$

$$+$$

$$[9\text{-}12 \text{ Enrollment (CEPD)} \div \text{Total } 9\text{-}12 \text{ Enrollment}]$$

(weighted equally)

\*includes FCS

# CEPD Share (Proposed)

$$\left[ (N_{\text{CEPD}} + C_{\text{CEPD}}) \div (N_{\text{State}} + C_{\text{State}}) \right]$$

N = # of concentrators

C = # of completers

# Programs To Be Funded By CEPD Share

- Determined by the CEPD
- All PSNs selected by CEPD receive a portion of the CEPD Share
- Amount allocated to each PSN by CEPD

Options formula:

$$= [N(b) + C(c)] * M$$

# Minimize Special Rules/Exceptions

- Count all concentrators/completers regardless of student grade level
- Fund Less-Than-Class-Size the same as other “regular” programs
- No cap on number of students funded per PSN (eliminate “additional staff”)
- Include Summer course section students in the formula

# Minimize Special Rules/Exceptions

- Eliminate required number of minutes for programs
- Eliminate exceptions to minimum minutes
- Exclude New and Emerging programs from funding formula
- Eliminate funding of Capstone as stand-alone CIP Codes



# Minimize Special Rules/Exceptions

- Exclude Family Consumer Science  
(Fiscal Agencies may expend funds on  
Parenthood Education)
- Exclude Foundation 8 from formula  
(legislated)

# Other Proposals

- Additive Factors:
  - Easy to modify based on needs and priorities
  - Examples:
    - “Priority Programs” (e.g. STEM)
    - Performance-based funding

# Table 1:

## 60% Funds Generated By CIP Code (Actual 2012-13 and Two Simulations)

- Columns 1, 2: Top 20 Programs on the Rank List (In CIP code order)
- Column 3: Actual amount generated by each CIP Code statewide with 60% funds in 2012-13

# Table 1: 60% Funds Generated By CIP Code

- Column 10: **Simulation 4**: Amount generated by CIP code, with Student Progress weights: Completers (10), Concentrators (5), Enrollees (1)

# Table 1:

## 60% Funds Generated By CIP Code

- **Simulation 4**

- Col. 11: % of Total Allocation (Simulation 4)
- Col. 12: Amount of dollars (increase or **decrease**) from Actual 2012-13 amount of 60% funds
- Col. 13: Percent increase or **decrease** from Actual 2012-13 60% funds generated by CIP Code
- \*Indicates 100% increase because CIP Code was not funded with 60% funds in 2012-13

# Table 1: OBSERVATIONS

## 60% Funds Generated By CIP Code

- 60% Funds distributed among 20 CIP Codes using new formula compared to eight CIP codes in current formula
- Changing enrollee weights from 0.25 to 2.5 impacted the funding of the eight CIP codes differently
  - Some gained more money while others lost money

# Table 1: OBSERVATIONS

## 60% Funds Generated By CIP Code

- Positive percent gains as enrollee weights increased are much lower than the negative percent losses
- As enrollee weights were changed from 0.25 to 2.5, the percent of funds lost declined as the weights increased except for one program that was mainly unaffected

## **Table 2: 60% Funds Generated—By CEPD (Actual 2012-13 and Two Simulations)**

- Columns 1, 2: CEPD Number and Name
- Column 3: CEPD Number and Actual amount of 60% funds generated by each CEPD in 2012-13



## Table 2: 60% Funds Generated By CEPD

- Col. 5: **Simulation 4:** Amount generated by CEPD, with Student Progress weights: Completers (10), Concentrators (5), Enrollees (1)

## Table 2: 60% Funds Generated By CEPD

- **Simulation 4 (Columns 5-7 (E=1.0))**
  - Amount of 60% Funds Generated (Simulation 4)
  - Amount of dollars (increase or **decrease**) from Actual 2012-13 amount of 60% funds
  - Percent increase or **decrease** from Actual 2012-13 60% funds generated by CEPD

## Table 2: OBSERVATIONS 60% Funds Generated By CEPD

- Of the 24 CEPDs that lost funds as enrollee weight was increased from 0.25 to 2.5, nine CEPDs lost more money while 15 gained more money
- Of the 30 CEPDs that gained funds as enrollee weight was increased from 0.25 to 2.5, 26 CEPDs lost more money while four gained more money

# 40% Funds Proposals

## Table 3: 40% Funds (CEPD Share)

- Columns 1 & 2: CEPD Number and Name
- Column 3: Actual CEPD Share in 2012-13
- Columns 4, 5, 6: Number of enrollees, concentrators and completers in 2012-13
- Column 7: CEPD Share based on proposed formula
  - Each student counted one time statewide
  - FCS, Capstone

## Table 3: 40% Funds (CEPD Share)

- Column 8: Increase or Decrease in CEPD Share compared to 2012-13 actual
- Column 9: Percent Change from Actual 2012-13 CEPD Share

## Table 3: OBSERVATIONS 40% Funds (CEPD Share)

- Out of 54 CEPDs, 27 gained funds, 26 lost funds, and one did not receive any funds
- The largest gainer of funds (CEPD 51) gained 82.31% in funds while the largest loser of funds (CEPD 41) lost 52.74% in funds

## **Table 4: Total (60% + 40%) Funds Generated for Each CEPD (Actual 2012-13 and Four Simulations)**

- Columns 1, 2: CEPD Number and Name
- Column 3-5: Actual amount of 60% and 40% funds generated by each CEPD in 2012-13



## **Table 4: Total (60% + 40%) Funds Generated By CEPD**

- Columns 6-8: Data Used in Simulations
  - Column 6: Number of Enrollees in CEPD
  - Column 7: Number of Concentrators in CEPD
  - Column 8: Number of Completers in the CEPD

## Table 4: Total (60% + 40%) Funds Generated for Each CEPD (Actual 2012-13 and Simulation)

- Col. 9: CEPD Share (40%) (new formula)
- Col. 10: Increase or **Decrease** in CEPD Share (in dollars) compared to 2012-13
- Col. 11: Percent Change in CEPD Share from Actual

## Table 4: Total (60% + 40%) Funds Generated for Each CEPD (Actual 2012-13 and Simulation)

- Column 12: **Simulation 4:** 60% Amount generated by CEPD, with Student Progress weights: Completers (10), Concentrators (5), Enrollees (1)

## Table 4: Total (60% + 40%) Funds Generated for Each CEPD (Actual 2012-13 and Simulation)

- Column 13: **Simulation 4:** 60% + 40% Total Amount generated by CEPD, with Student Progress weights: Completers (10), Concentrators (5), Enrollees (1)

## Table 4: OBSERVATIONS Total (60% + 40%) Funds By CEPD

- When enrollee weights were set to 0.25, 26 CEPDs gained in the total amount of 61a1 Funds (60% + 40%) generated and 27 CEPDs lost funds
- When enrollee weights were set to 2.50, 23 CEPDs gained in the total amount of 61a1 Funds (60% + 40%) generated and 28 CEPDs lost funds

# SUMMARY

- After review and discussion, the referent group agreed, in general with all recommendations specified in the Proposed Changes document (Spring 2014)
- The May 23<sup>rd</sup> referent group meeting concluded with a request for two additional meetings to come to consensus on weight for enrollees
- In October 2014, the referent group recommended weights of 1, 5, and 10 for Student Progress

# Questions/Discussion

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# THANK YOU